UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,128	08/29/2001	Yoshikazu Takashima	275770US8	9308

22850 7590 11/05/2007

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
JONES, HEATHER RAE	

ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
11/05/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	09/943,128	TAKASHIMA ET AL.	
	Examiner	Art Unit	
	Heather R. Jones	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 7-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 7-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 22, 2007 have been fully considered but they are not persuasive.

The Applicant argues on page 9, lines 8-12 that Suzuki et al. fails to teach or fairly suggest rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to an invalid value. The Examiner respectfully disagrees. Suzuki et al. discloses three methods of rewriting vbv_delay at the time of high speed reproduction and in the third method vbv_delay is rewritten to read "3FFFFFFF" in order to indicate a variable rate (col. 14, lines 45-50); which means that "3FFFFFFFF" is not a valid number. Furthermore, once the vbv_delay is indicated as being variable the vbv_delay is disregarded, meaning that the vbv_delay is no longer valid. Therefore, Suzuki et al. meets the claim limitation of rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to an invalid value and the rejection is maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (U.S. Patent 5,699,474).

Regarding claim **1**, Suzuki et al. discloses a transmitting apparatus for converting a coded bit stream into a trick play output and sending the coded bit stream to a transmission path, comprising: accumulating means for accumulating the coded bit stream including an intra-frame coded picture, a forward predictive-coded picture, and a bidirectionally predictive-coded picture (401); output control means for controlling an output of the coded bit stream in an output mode corresponding to a designated trick play operation (406); rewriting means for rewriting control data which specifies a displaying order of the pictures with respect to the coded bit stream (86) (col. 14, lines 15-20), and rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to an invalid value (col. 14, lines 45-50); picture forming means for forming a picture obtained by copying a predetermined picture (col. 12, lines 49-65); output means for outputting a picture whose control data has been rewritten and the formed picture in accordance with the control of the output means (col. 12, lines 49-65).

Regarding claim **2**, Suzuki et al. discloses all the limitations as previously discussed with respect to claim 1, including that the predetermined picture is the intra-frame coded picture or the forward predictive-coded picture, the copied picture is outputted as a skip P picture having a structure such that macroblocks

other than macroblocks at both ends of a slice is skipped (col. 15, line 64 – col.16, line 9 – this is an inherent feature required by MPEG).

Regarding claim **7**, Suzuki et al. discloses a transmission system of image information, comprising: accumulating means for accumulating a coded bit stream including an intra-frame coded picture, a forward predictive-coded picture, and a bidirectionally predictive-coded picture (401); output control means for controlling an output of the coded bit stream in an output mode corresponding to a designated trick play operation (406); rewriting means for rewriting control data which specifies a displaying order of the pictures with respect to the coded bit stream (86) (col. 14, lines 15-20), and rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to an invalid value (col. 14, lines 45-50); picture forming means for forming a picture obtained by copying a predetermined picture (col. 12, lines 49-65); output means for outputting a picture whose control data has been rewritten and the formed picture as trick play output data in accordance with the control of the output means (col. 12, lines 49-65); a digital interface connected to the output means (col. 10, lines 29-34); and an apparatus for recording or displaying the trick play output data received through the digital interface (604) (col. 10, lines 35-42).

Regarding claim **8**, this is a method claim corresponding to the apparatus claim 1. Therefore, claim 8 is analyzed and rejected as previously discussed with respect to claim 1.

Regarding claims **9** and **10**, Suzuki et al. discloses all the limitations as previously discussed with respect to claims 1 and 7 including that the picture formed by the image forming means represents an entire frame of the coded bit stream (Fig. 8).

Regarding claim **11**, this is a method claim corresponding to the apparatus claim 9. Therefore, claim 11 is analyzed and rejected as previously discussed with respect to claim 9.

Regarding claim **12**, Suzuki et al. discloses a transmitting apparatus for converting a coded bit stream into a trick play output and sending the coded bit stream to a transmission path, comprising: a memory configured to accumulate the coded bit stream including an intra-frame coded picture, a forward predictive-coded picture, and a bidirectionally predictive-coded picture (401); a controller configured to control an output of the coded bit stream in an output mode corresponding to a designated trick play operation (406); a rewriting module configured to rewrite control data which specifies a displaying order of the pictures with respect to the coded bit stream (86) (col. 14, lines 15-20); a rewriting module configured to rewrite control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to an invalid value (col. 14, lines 45-50); picture forming module configured to form a picture obtained by copying a predetermined picture (col. 12, lines 49-65); and an output configured to output a picture whose control data has been rewritten and the

formed picture in accordance with the control of the output means (col. 12, lines 49-65).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. as applied to claims 1, 7, and 8 above, and further in view of Mercier (U.S. Patent 6,865,747).

Regarding claims **13-15**, Suzuki et al. discloses all the limitations as previously discussed with respect to claims 1, 7, and 8, but fails to disclose that the coded bit stream is output by a slow operation by removing the bidirectionally predictive-coded picture and repeating output processes such that after the intra-frame coded picture and the forward predictive-coded picture which repetitively appear at intervals (m), the copied pictures of the number of larger than the (m) are outputted.

Referring to the Mercier reference, Mercier discloses an apparatus for converting a coded bit stream into a trick play output and sending the coded bit stream to a transmission path wherein the coded bit stream is output by a slow

operation by removing the bidirectionally predictive-coded picture and repeating output processes such that after the intra-frame coded picture and the forward predictive-coded picture which repetitively appear at intervals (m), the copied pictures of the number of larger than the (m) are outputted (col. 9, line 64 – col. 10, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used repeated copied pictures that repetitively appear at intervals (m) so that the coded bit stream is outputted by a slow operation as disclosed by Mercier with the apparatus disclosed by Suzuki et al. in order to provide the possibility to generate a valid MPEG video stream with a valid number of frames per second during trick play.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Eerenberg et al. (U.S. Patent 6,621,979) discloses that an empty P-frame must always contain the first and last macroblocks of a slice, this is required by MPEG (col. 24, lines 63-64).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Jones whose telephone number is 571-272-

7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
October 29, 2007

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600